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2021.



**Hamilton-Wentworth Official Plan Review
Background Paper #2**

**HAMILTON-WENTWORTH
POPULATION, HOUSEHOLD, AND
LABOUR FORCE PROJECTIONS, 1996 TO 2021**



February, 2000

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH
"The Sustainable Region"

City of Hamilton / Region of Hamilton-Wentworth
Community Planning and Development Division
Community Planning Department
Strategic Projects Section

Hamilton-Wentworth Population, Household and Labour Force Projections, 1996 to 2021

Prepared by:

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February, 2000

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REPORT HIGHLIGHTS

POPULATION FORECASTS

Hamilton-Wentworth's population is forecast to increase by 108,000 people from an estimated 467,830 in 1996 to 575,825 in 2021.

Hamilton-Wentworth's population will continue to age with the median age of the population expected to increase from 36 years in 1996 to 41 years of age in 2021.

The largest increases in population will be in the age group 65 and over, which is forecast to grow from 66,300 people in 1996 to 104,060 people in 2021 or 18% of the population.

HOUSEHOLD FORECASTS

The number of households in Hamilton-Wentworth is forecast to increase by 57,000 from an estimated 178,420 in 1996 to 235,580 in 2021.

The largest growth in the number of households will occur in households headed by individuals aged 55 and over, reflecting the aging of the population.

LABOUR FORCE FORECASTS

The resident labour force in Hamilton-Wentworth is forecast to increase by 85,000 people from an estimated 232,000 in 1996 to 317,000 in 2021.

The size of the labour force forecast to be working in Hamilton-Wentworth is expected to increase by almost 102,000 people between 1996 and 2001. This increase is larger than the expected growth in the resident labour force because it is assumed that the large number of people who dropped out of the labour force during the recession will and are returning and the unemployment rate will remain around 5% for the forecast period.

FORECAST POPULATION, HOUSEHOLDS and LABOUR FORCE Hamilton-Wentworth, 1996 – 2021

	Year					
	1996	2001	2006	2011	2016	2021
Population	467,830	490,315	511,510	532,380	554,100	575,825
Households	178,420	188,940	199,905	211,490	223,600	235,580
Labour Force	232,000	269,000	285,500	300,800	310,500	317,800

Source: Census of Canada, 1996 & Region of Hamilton-Wentworth.

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INTRODUCTION

In January 1995, the Ontario Minister of Municipal Affairs and Housing officially approved the Hamilton-Wentworth Official Plan entitled **"Towards a Sustainable Region"**. One of the building blocks for development of the Official Plan was the preparation in 1992 of detailed population, household and labour force projections to the year 2021 (Region of Hamilton-Wentworth, 1992). These projections were adopted by Regional Council and incorporated into the Official Plan as a guide for planning municipal services (see page C-13 of the Hamilton-Wentworth Official Plan, April 1998).

This report presents population and household projections for the Region of Hamilton-Wentworth by age and gender to the year 2021. These projections replace those in the report entitled **"Hamilton-Wentworth Population, Household and Labour Force Projections, 1991 – 2021"** and published in December 1992.

The population and household projections are being updated because:

- Policy C.3.1.2.4 of the Hamilton-Wentworth Official Plan requires a review every five years of the Regional population, household, and labour force forecasts according to a twenty-year time frame;
- The base year for the projections can be updated to 1996 to take into account the latest population estimates from the Census of Canada; and
- Population growth between 1991 and 1996 was almost 10,000 people less than projected in 1992.

This report is also considered as a background study for the five-year review of the Hamilton-Wentworth Official Plan required in Official Plan Policy D.3.1. It serves as the foundation for a review of the Regional development pattern and an evaluation of the adequacy of current land use designations to meet forecasted future growth. In addition, this report provides sufficient detail and accuracy for other agencies and Regional Departments planning municipal services, such as transit, roads, public health, water, wastewater and solid waste.

Section One of the report explains the cohort survival methodology used to project future population, household and labour force change. Section Two outlines the factors that are expected to affect future fertility and mortality rates and migration flows and forecasts population growth to the year 2021. Section Three projects future household growth and Section Four forecasts future growth in the labour force. The final section of the report Section Five, provides a brief discussion of the land-use policy implications of the forecast population, household, and labour force growth to the year 2021.

SECTION ONE: METHODOLOGY

COHORT SURVIVAL TECHNIQUE

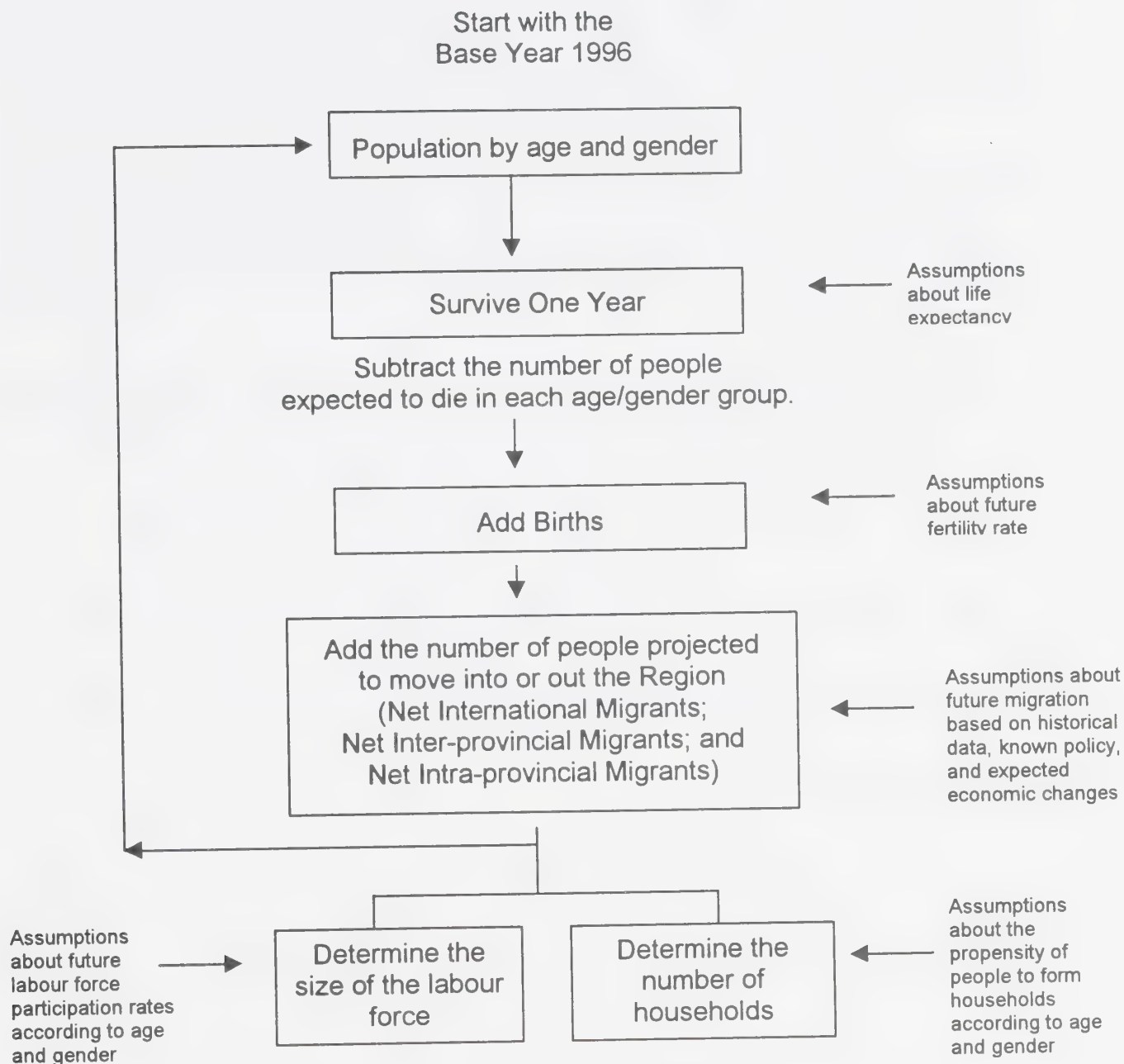
Forecasting future population growth and change is not an exact science. The accuracy of any projection is conditional upon the accuracy of the base population, the component data and the degree to which the underlying assumptions about projected birth, mortality and migration rates successfully anticipate future socio-economic, demographic and political trends. Most of these factors can not be foreseen in the long-term and their impact on population change accurately measured. In general, the uncertainty about forecasted population growth increases over the projection period and is greater the smaller the population being forecasted.

The most common methodology used to project future population change and the one recommended by the Province of Ontario is the cohort-survival method.¹ This methodology was used in the forecasts published in December 1992 and is used again for this Report. Summarized in Figure One, the method begins with the most recent estimated current population (1996 Census) divided into single year age and gender groups. The population is "aged" one year at a time, with assumed fertility and mortality rates generating births and deaths in each year. Additional assumptions are made about the annual size and age-gender composition of the number of people who will move into or out of Hamilton-Wentworth. The assumptions made about the number of people who will move into or out of Hamilton-Wentworth are tied to assumptions about future socio-economic changes that will influence whether people's decision to move.

Once the total population by age and gender is forecast for the coming time period, assumptions are made by age and gender about the propensity of people to form a household and to participate in the labour force. Based on these assumptions a forecast is made about the number of households there will be and the size of the resident labour force.

¹ The Province of Ontario's report, "Projection Methodology Guidelines: A Guide to Projecting Population, Housing Need, Employment and Related Land Requirements", published in 1995, provides a more detailed discussion about the methodologies followed in forecasting future growth and change.

**Figure One: POPULATION, HOUSEHOLD
& LABOUR FORCE PROJECTION METHODOLOGY²**



² Modified from the Province of Ontario's report, "Projection Methodology Guidelines: A Guide to Projecting Population, Housing Need, Employment and Related Land Requirements", published in 1995.

SECTION TWO: POPULATION FORECASTS

CURRENT FORECASTS

The 1992 Regional population projections, prepared by the Region's Planning and Development Department projected that the population of Hamilton-Wentworth will increase by 114,800 people between 1991 and 2021. This increase from 451,655 people in 1991 to 566,465 in 2021 represents a projected 25% increase in the Region's population (Regional Municipality of Hamilton-Wentworth, 1992).

Between 1991 and 1996 the Region's population was forecasted to increase by 25,900 people to a total of 477,565 people. According to the 1996 Census, Hamilton-Wentworth was identified as having a population of 467,830, which is almost 10,000 less than forecasted in 1992. Although it is difficult to review the validity of long-term population forecasts only a few years after they have been prepared, it would appear that the projections have been optimistic in forecasting future growth.

There are a number of reasons why actual population growth during the early 1990s was less than projected. The three key factors however were:

- Lower than projected fertility rates, in particular for women aged 21 to 27;
- The economic recession of the early 1990s which resulted in Ontario as a whole receiving fewer than expected migrants from other Provinces; and
- Hamilton-Wentworth did not receive the number of international migrants as forecast in 1992.

To what extent these factors and others are still influencing population change and will influence the long-term population forecast is discussed in this Report.

NATURAL INCREASE

Natural population increase equals the difference between the number of births and the number of deaths, which occur annually. The age structure of a population has an important bearing on natural increase because the size of the elderly cohort influences the number of deaths, and the size of the cohort of women in the childbearing years influences the number of births. At the same time, fertility and mortality rates also exert powerful influences on the rate of natural increase in the population. The higher the fertility rate, the more children; the lower the mortality rate, the fewer deaths.

Fertility

The projections for Hamilton-Wentworth, published in December 1992, assumed that the total fertility rate would increase to 1.76 births per woman by 1996 and then drop to 1.68 births per woman by 2001. After 2001, the total fertility rate was held constant at 1.68 births per woman. These assumptions about future fertility rates were the same as the assumptions used by the Ontario Ministry of Treasury and Economics in its June 1991 report projecting future population change in Ontario. The rationale behind the slight increase in fertility rates for the early 1990s was that recent data had implied a short-term upward shift in fertility.

Actual total fertility rates in Hamilton-Wentworth have been significantly lower than the projected rate. Between 1991 and 1996 the average total fertility rate for Hamilton-Wentworth was 1.61 births per woman. This lower than forecasted birth rate translates into a total difference of about 3,500 births between what occurred and what was projected in the 1992 report for the 1991 to 1996 time period.

When comparing age specific fertility rates for Hamilton-Wentworth against the rates for the Province of Ontario, there is a significant difference for two age groups. For women aged 15 to 18 Hamilton-Wentworth has a slightly higher fertility rate while for women aged 21 to 27 Hamilton-Wentworth has a relatively significant lower fertility rate. The lower than expected fertility rates for women aged 21 to 27 is the primary factor explaining the lower than projected births for the 1991 to 1996 time period.

In January 1994, the Ontario Ministry of Finance published a revised set of population projections for the Province of Ontario. Because total fertility rates across the Province did not increase to 1.76 births per woman as projected in 1991, the assumptions for total fertility rates were revised downward. The total fertility rate of 1.67 births per woman for Ontario in 1991 was held constant for the entire projection period. This assumption is consistent with the one used for Ontario by Statistics Canada in 1994 for its report *Population Projections for Canada, Provinces, and Territories*.

Neither the Ontario Ministry of Finance and Statistics Canada has found any evidence that would indicate a future change in the total fertility rate. Therefore, the revised projections for Hamilton-Wentworth holds the average total fertility rate of 1.61 births per woman for the 1991 to 1996 time period as constant for the entire projection period.

In comparison to the 1992 Report, and holding all other assumptions constant this revised assumption about fertility would result in an estimated drop of about 20,000 to 25,000 people in the projected population for the year 2021.

It should be noted that recent data provided by Statistics Canada and the Ontario Ministry of Finance revealed the fertility rate for Hamilton-Wentworth in 1997 and 1998 at a level of 1.52-1.53. However, these lower fertility rates have not been incorporated into the population model recognizing that year-to-year fluctuations do occur and it is too early to assess whether these numbers are indicative of a long-term downward shift of fertility rates. Concurrent to the release of the new fertility rates, the Ministry of Finance released population projections for all Regional Municipalities in Ontario. The projected population numbers for Hamilton-Wentworth were slightly lower than the numbers derived in this report and on this basis it will be important to monitor actual population growth against projected population growth in the next several years.

Mortality

The projections for Hamilton-Wentworth, published in December 1992, assumed that the male life expectancy at birth would rise from 74.1 years in 1990 to 78.3 years in 2015, while life expectancy at birth for females would rise from 79.5 years in 1990 to 84.5 years in 2015. These assumptions about future mortality rates were the same as the ones used by the Ontario Ministry of Treasury and Economics in its June 1991 report projecting future population change in Ontario.

In January 1994 the Ontario Ministry of Finance published a revised set of population projections for the Province of Ontario. The long-term mortality assumptions used by the Ministry of Finance were not changed because there was no evidence to suggest a change in mortality rates. This assumption is consistent with the one used for Ontario by Statistics Canada in 1994 for its report *Population Projections for Canada, Provinces, and Territories*. Statistics Canada assumed that male life expectancy would increase to 79 years by 2016 and female life expectancy would increase to 84 years by 2016.

Based on the work of Ministry of Finance and Statistics Canada no changes are recommended in the assumptions for mortality.

MIGRATION

With the stability in fertility and mortality rates that has been experienced over the last 20 years and which is projected to continue, the movement of people has become the most unpredictable component of population change. Net migration is the difference between the number of people moving into an area and the number of people moving out of an area.

Generally people change residence in response to a range of socio-economic, demographic and political factors and/or a desire to improve their quality of life. In other words, people move for reasons, such as, when they get or lose a job, when they are looking for a change in cost and/or quality of housing or if their household structure changes such as the addition of children. There are three types of migration, which must be examined in order to estimate the net effect migration will have on future population change. These are:

- International migration, which is a change of residence that involves a move to or from another country;
- Inter-provincial migration, which is a change of residence that involves a move to or from another Province; and
- Intra-provincial migration, which is a change of residence that involves a move to or from another County or Regional Municipality within the Province of Ontario.

International Migration

International migration in recent years has been an important component of population growth in Hamilton-Wentworth. In the mid-1980s the Federal Government began to increase its annual immigration target from below 100,000 to over 200,000. Since 1989 the annual immigration target has remained between 200,000 and 250,000 people.

With the increase in the Federal Government's annual immigration target, the number of net international migrants to Hamilton-Wentworth between the 1988-89 and 1996-97, as shown in Table One, has remained in the range of 2,500 to 3,500 people. This continued influx of international migrants to our community has been one of the major reasons behind any population growth that occurred between 1990 and 1996.

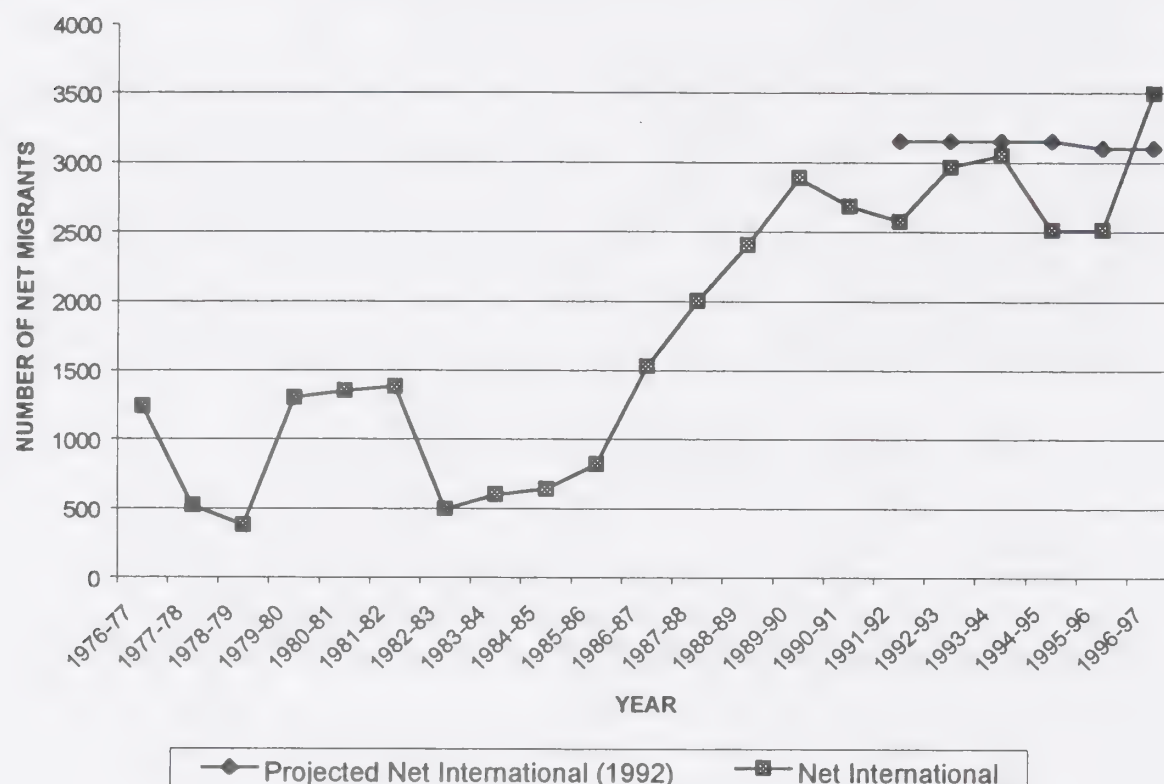
During the same time period, net international migration to Canada, remained in the range of 170,000 to 200,000 people, with usually 50% to 60% of the international migrants settling in Ontario. This level of net international migration to Canada and Ontario was projected in the "1992 Population Projections" report for Hamilton-Wentworth. However, it was expected that Hamilton-Wentworth would receive 3% of the international migrants coming to Ontario. During the 1990-91 to 1996-97 time period the proportion of international migrants coming to Ontario who moved to Hamilton-Wentworth was closer to 2.5% to 2.75%. Therefore, as seen in Figure Two, the actual number of international migrants has been slightly lower than what was forecast in the "1992 Population Projections" report for Hamilton-Wentworth.

**Table One: INTERNATIONAL MIGRATION
Hamilton-Wentworth, 1976 to 1997**

YEAR	NUMBER of IN-MIGRANTS	NUMBER of OUT-MIGRANTS	NET MIGRANTS
1976-77	(a)	(a)	1235
1977-78	(a)	(a)	520
1978-79	(a)	(a)	380
1979-80	(a)	(a)	1300
1980-81	(a)	(a)	1350
1981-82	2100	720	1380
1982-83	1285	790	495
1983-84	1160	560	600
1984-85	1295	660	640
1985-86	1405	585	820
1986-87	2280	750	1530
1987-88	2610	615	2000
1988-89	2830	425	2405
1989-90	3430	545	2885
1990-91	3100	415	2685
1991-92	3125	555	2575
1992-93	3495	530	2965
1993-94	3535	485	3050
1994-95	3045	535	2510
1995-96	3130	620	2510
1996-97(p)	4135	640	3495

Source: Statistics Canada, Small Area and Data Division
(a) Data unavailable; (p) Preliminary data

**Figure Two: NET INTERNATIONAL MIGRATION
Hamilton-Wentworth, 1976-77 to 1996-97**



Sources: Statistics Canada, Small Area and Data Division
Regional Municipality of Hamilton-Wentworth, 1992

Future International Migration Possibilities

Levels of immigration to Canada are tied directly to Federal policy, which during the 1990s has remained relatively consistent. Annual immigration to Canada has stayed in the range of 200,000 to 250,000 people, while emigration (the permanent loss of Canadian residents to other countries) has consistently been around 45,000 people. The Canadian Government does not have a long-term policy for immigration targets but it has kept the annual immigration target through the 1990s between 210,000 and 225,000. Most discussions about long-term population change in Canada suggest that immigration needs to remain at this level or Canada's population will start to decline in the middle of the 21st Century.

In 1994, the Ontario Ministry of Finance prepared population projections for the Province of Ontario for 1991 to 2021. These projections assumed that immigration to Ontario would decline gradually from 138,000 per year in 1992 to around 105,000 in 2012 and remain constant thereafter. Emigration is projected to remain at about 25,000 per year, meaning the net international migration to Ontario will be 113,000 in 1992 and 80,000 by 2012 and thereafter.

Statistics Canada most recent population projections for Canada were prepared in 1994 for the 1993 to 2016 time period. In the medium growth scenario Statistics Canada assumed that the Federal Government's immigration target of 250,000 in 1992 would remain in place for the entire projection period and that emigration would remain around 45,000 people. If Ontario continues to receive around 55% of the international migrants, the net international migration rate for Ontario would be 112,750 per year.

Revised Assumption for International Migration

Both the Ontario Ministry of Finance and Statistics Canada are projecting that the Federal Immigration Targets will remain over 200,000 until at least the year 2010 and probably beyond. The primary reason for this assumption is the need to prevent a long-term decline in Canada's population.

Since 1992 the annual Federal Immigration Target has remained at 225,000 (Citizenship and Immigration Canada, April 1997; October 1998), which is below Statistics Canada estimate of 250,000 a year. Actual levels of immigration have through most of the 1990s have come close to the annual target and emigration has consistently remained around 45,000 people a year. The proportion of immigrants selecting Ontario has also been consistently around 55% through the 1990s, with the vast majority selecting Toronto as their first place of residence.

International migration will continue to be a significant factor underlying any future population growth and change in Hamilton-Wentworth. Assuming that:

- The Federal Government maintains an annual immigration target of 225,000 until 2021;
- Emigration remains around 45,000 people a year;
- Ontario continues to receive around 55% of Canada's net international migrants; and
- 2.75% of the international migrants to Ontario select Hamilton-Wentworth,

the annual average number of international migrants to Hamilton-Wentworth for the 1996 to 2021 time period will be 2,725 people.

Inter-provincial Migration

Inter-provincial migration, the movement of people between Provinces, tends to fluctuate in response to economic and political events. During the 1970s, the oil boom caused a large movement of people from Ontario to Western Canada. Political uncertainties in Quebec during the late 1970s and early 1980s lead to a large number of people moving from Quebec to other Provinces. Strong economic growth in the late 1980s saw Ontario attract a large number of people from all across Canada.

The historical pattern of inter-provincial migration in Hamilton-Wentworth has followed these national trends. Table Two shows that during the recession of the early 1980s Hamilton-Wentworth experienced a net loss of migrants and during the economic boom of the late 1980s a net gain of migrants. With the exception of these two events, the level of net inter-provincial migration has tended to remain around 500 people a year. During the 1990s, reflecting the recession in Ontario that occurred during the same time period, Hamilton-Wentworth has seen more people move to another Province than come to our community from outside Ontario.

Table Two: INTER-PROVINCIAL MIGRATION
Hamilton-Wentworth, 1976 to 1996

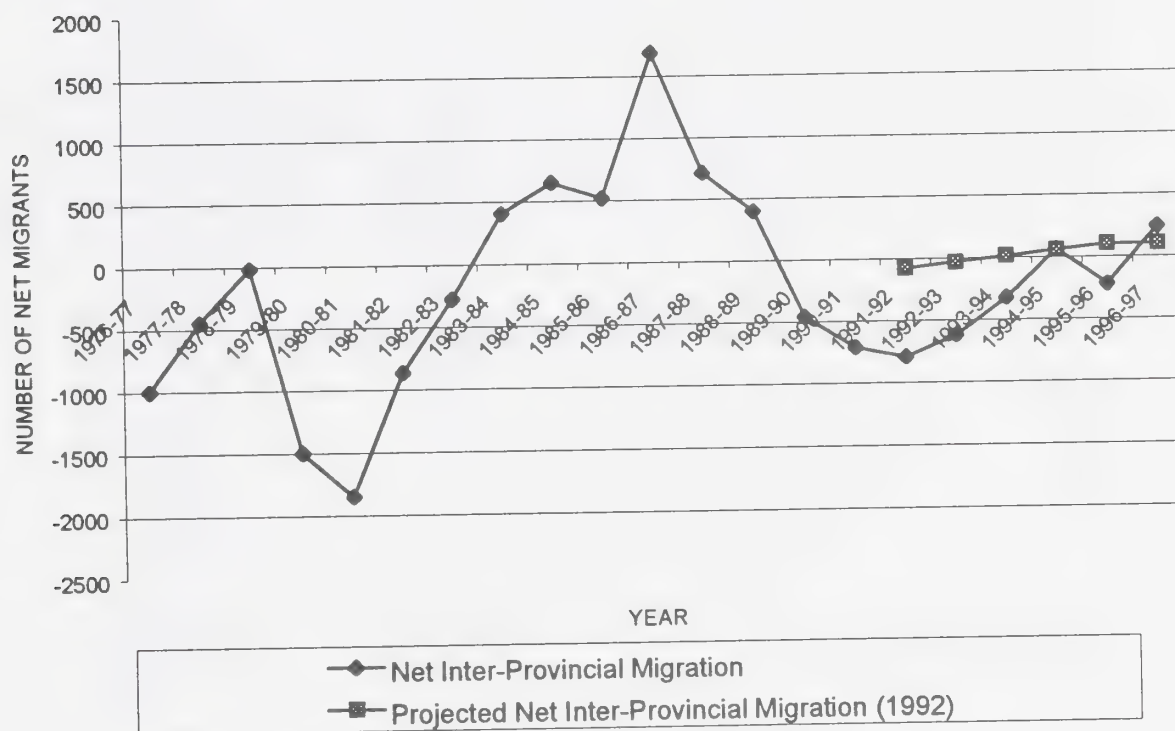
YEAR	NUMBER of IN-MIGRANTS	NUMBER of OUT-MIGRANTS	NET MIGRANTS
1976-77	(a)	(a)	-1000
1977-78	(a)	(a)	-450
1978-79	(a)	(a)	-20
1979-80	(a)	(a)	-1500
1980-81	(a)	(a)	-1850
1981-82	1880	2745	-865
1982-83	1725	2005	-280
1983-84	1805	1400	405
1984-85	1845	1195	650
1985-86	1840	1320	520
1986-87	3085	1400	1685
1987-88	2695	1980	715
1988-89	2470	2070	400
1989-90	2170	2630	-460
1990-91	1660	2370	-710
1991-92	1595	2385	-790
1992-93	1555	2175	-620
1993-94	1725	2050	-325
1994-95	1840	1780	60
1995-96	1695	1915	-220
1996-97(p)	2040	1805	235

Source: Statistics Canada, Small Area and Data Division
(a) Data unavailable; (p) Preliminary data

In the "1992 Population Projections" report for Hamilton-Wentworth it was projected that between 1991 and 1996, Hamilton-Wentworth's net inter-provincial migration rate would fall to minus 80 in 1991-92 and then slowly increase to 100 by 1995-96. For the long term it was assumed that future fluctuations in inter-provincial migration would average out to a net of 100 people a year.

During the early 1990s, Figure Three shows that the actual net inter-provincial migration rate was significantly lower than projected. However, more recently (1994-95 to 1996-97) inter-provincial migration has increased to a rate closer to what was projected. However the annual average between 1991-92 and 1996-97 was minus 275 people.

**Figure Three: NET INTER-PROVINCIAL MIGRATION
Hamilton-Wentworth, 1976-77 to 1996-97**



Sources: Statistics Canada, Small Area and Data Division
Regional Municipality of Hamilton-Wentworth, 1992

Future Inter-provincial Migration Possibilities

On a national scale the rate and number of inter-provincial migrants has been declining. This is in part a reflection of the aging of the Canadian population. As people become older and more established, the willingness and ability to make a significant change in community becomes less.

In 1994, the Ontario Ministry of Finance prepared population projections for the Province of Ontario for 1991 to 2021. These projections assumed that Ontario's economy would remain a strong attraction for inter-provincial migrants. They project that the net inter-provincial migration to Ontario will be +5,000 a year until 2000 and +10,000 a year thereafter.

Statistics Canada most recent population projections for Canada were prepared in 1994 for the 1993 to 2016 time period. In the medium growth scenario Statistics Canada assumed that starting in 1995-96 time period Ontario would begin to see a net increase in inter-provincial migration. Net inter-provincial migration would slowly increase from +700 in 1995-96 to +7,700 in 2000-01 and then level off at around +11,000 after 2005-06.

Revised Assumption for Inter-provincial Migration

With the exception of the two major economic shifts in the 1980s, inter-provincial migration has not had a significant influence on population growth in Hamilton-Wentworth. In all likelihood there will be future major economic shifts that will cause a large movement of people between Provinces but on average over the 25 year period between 1996 and 2021, it is expected that inter-provincial migration will have no net effect over the long-term regarding future population change.

The proposed assumption for future net levels of inter-provincial migration are zero.

Intra-provincial Migration

Intra-provincial migration, the movement of people between Counties and Regional Municipalities within Ontario, is the most open to the influence of local factors. Factors, such as the strength of the local economy, housing costs, transportation access, and quality of life influence intra-provincial migration. Over the last twenty years, Hamilton-Wentworth has tended to experience a net loss in intra-provincial migration. However, since 1992 Table Three shows that the trend is changing and between 1994 and 1997 Hamilton-Wentworth saw net gains in intra-provincial migration.

Table Three: NET INTRA-PROVINCIAL MIGRATION
Hamilton-Wentworth, 1976 to 1996

YEAR	NUMBER of IN-MIGRANTS	NUMBER of OUT-MIGRANTS	NET MIGRANTS
1976-77	(a)	(a)	-2200
1977-78	(a)	(a)	-1575
1978-79	(a)	(a)	-2150
1979-80	(a)	(a)	-1100
1980-81	(a)	(a)	-350
1981-82	10920	10570	345
1982-83	9855	10675	-820
1983-84	9650	11050	-1400
1984-85	10060	10720	-660
1985-86	11160	12380	-1220
1986-87	12975	12450	530
1987-88	12020	14620	-2595
1988-89	14255	14260	-5
1989-90	14035	15230	-1195
1990-91	11155	12610	-1455
1991-92	11115	13450	-2335
1992-93	11545	13300	-1875
1993-94	11885	12730	-845
1994-95	12300	12060	240
1995-96	12565	12345	225
1996-97 (p)	12870	12845	25

Source: Statistics Canada, Small Area and Data Division
(a) Data unavailable; (p) Preliminary data

An examination of the major intra-provincial migration streams for Hamilton-Wentworth in the 1990s, shows that the top three Regions where Hamilton-Wentworth attracted migrants were Halton, Toronto and Peel while the top three Regions where Hamilton-Wentworth lost migrants were Brant, Niagara, and Haldimand-Norfolk (see Table Four).

**Table Four: MAJOR NET INTRA-PROVINCIAL MIGRATION FLOWS
Hamilton-Wentworth, 1991-92 to 1996-97**

REGIONAL MUNICIPALITY OR COUNTY OF ORIGIN/ DESTINATION	1991- 92	1992- 93	1993- 94	1994- 95	1995- 96	1996- 97	AVERAGE ANNUAL NET MIGRATION
Halton	50	275	450	550	500	650	410
Toronto	170	-100	25	260	280	280	150
Peel	-40	-55	10	125	260	150	50
All Other Counties & Regional Municipalities	-1065	-800	-455	-60	20	-45	-400
Brant	-290	-240	-195	-10	-95	-20	-140
Niagara	-565	-390	-180	-170	-360	-485	-360
Haldimand – Norfolk	-590	-575	-500	-460	-390	-505	-505

Source: Statistics Canada, Small Area and Data Division

This recent shift to a net gain in intra-provincial migration can be correlated with observed changes occurring in commuting patterns. Census data collected in 1986, 1991 and 1996 reveal that Hamilton-Wentworth is changing to becoming a community with a larger number of people commuting out to work as opposed to those who commute into the community (see Table Five). In 1991, the net commuting rate was -6,500, while the 1996 Census reveals that this rate had almost doubled to -11,300 (32,900 in and 44,200 out).

**Table Five: NET WORK TRIPS
Hamilton-Wentworth, 1971 to 1996**

YEAR	FROM OTHER REGIONS TO HAMILTON- WENTWORTH	FROM HAMILTON- WENTWORTH TO OTHER REGIONS	NET COMMUTER SURPLUS/DEFICIT
1971	22,500	15,100	7,400
1981	30,800	24,300	6,500
1986	30,000	31,900	-1,900
1991	34,400	40,800	-6,500
1996	32,900	44,200	-11,300

Source: Census of Canada, POR-POW Data

The recently completed study, **Commuter Trends and Patterns for Hamilton-Wentworth** (Region of Hamilton-Wentworth, 1999), suggests that the increases in the commuter deficit may be a result of two trends:

- 1) The Hamilton-Wentworth local economy has been unable to generate enough employment opportunities meaning there exists a greater number of people available for work than the number of available jobs in Hamilton-Wentworth (see discussion presented in Section Four of this Report); and
- 2) Hamilton-Wentworth may be increasingly selected as a place to live by people working outside the Region. Factors that may be influencing this trend are:
 - the lower cost of housing in relation to housing in other Regions,
 - the type and quality of new housing,
 - an increasing number of dual income families,
 - the decentralization of job opportunities across the entire Golden Horseshoe, and
 - the location of new housing in Hamilton-Wentworth in relation to transportation access, such as Highways 403 and QEW and GO Transit.

These trends and the factors influencing the selection of Hamilton-Wentworth as a place to live were confirmed by the Region's 1995 **Survey of New Subdivision/Condominium Residents**. In Ancaster and Stoney Creek over 25% of the people surveyed worked in the GTA while almost 70% of the people surveyed in Waterdown worked in the GTA. More recent information presented in Table Six also indicates a significant increase in people living in Hamilton-Wentworth and working in the GTA.

**Table Six: PERCENTAGE of WORKFORCE WHOSE PLACE OF WORK is in the GTA
By Area Municipality for Hamilton-Wentworth for 1986 and 1996**

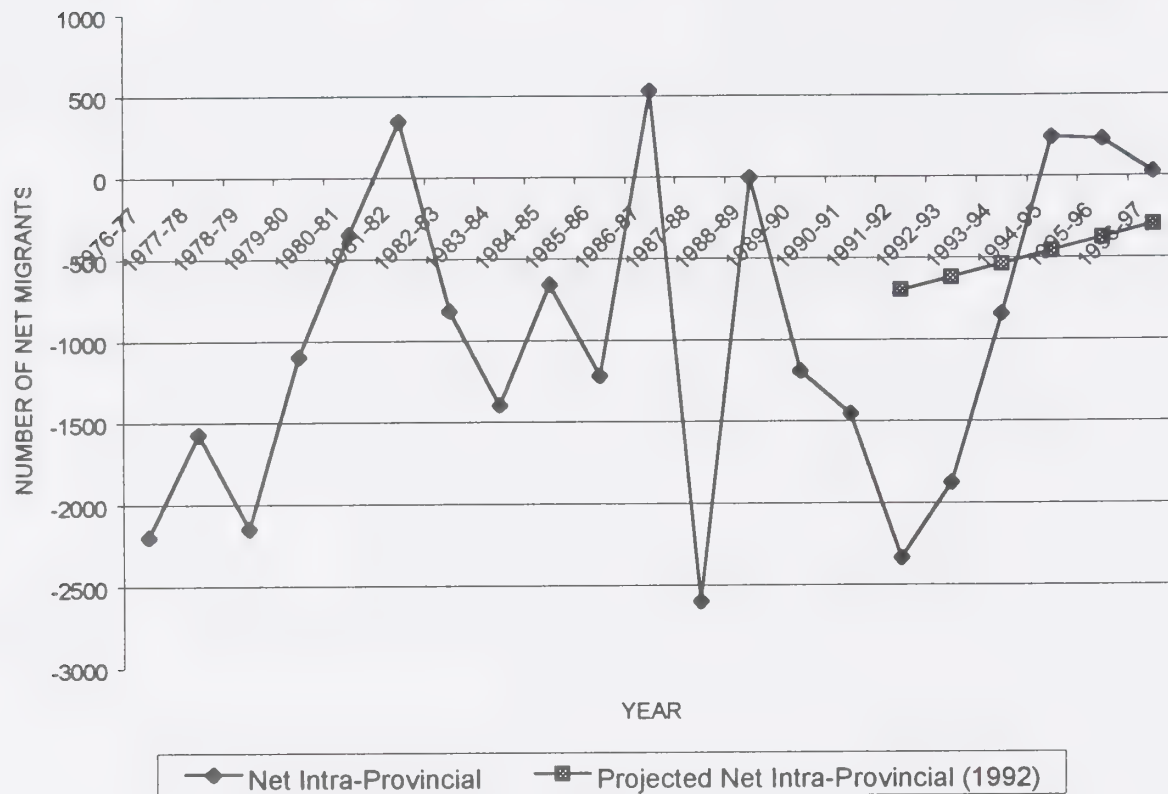
AREA MUNICIPALITY	1986	1996
Ancaster	12.9%	15.4%
Dundas	14.1%	19.0%
Flamborough	26.9%	42.3%
Glanbrook	8.8%	13.5%
Hamilton	12.4%	17.8%
Stoney Creek	11.0%	17.4%

Source: Census of Canada, POR-POW Data

In the "1992 Population Projections" report for Hamilton-Wentworth it was forecast that between 1991 and 2000, Hamilton-Wentworth's net intra-provincial migration rate would remain below zero but eventually reach zero by the year 2000. For the long term it was assumed that future fluctuations in intra-provincial migration would average out to a net of zero people a year.

Figure Four shows that during the early 1990s Hamilton-Wentworth experienced a significant net loss in net intra-provincial migration. More recently (1994-95 to 1996-97) intra-provincial migration has become positive and exceeded what was projected in 1992. However, for the last six years the average annual net intra-provincial migration rate has been -760.

Figure Four: NET INTRA-PROVINCIAL MIGRATION
Hamilton-Wentworth, 1976-77 to 1996-97



Sources: Statistics Canada, Small Area and Data Division
 Regional Municipality of Hamilton-Wentworth, 1992

Future Intra-provincial Migration Possibilities

FACTORS THAT MAY REDUCE THE RATE OF INTRA-PROVINCIAL MIGRATION.	FACTORS THAT MAY INCREASE OR MAINTAIN THE CURRENT RATE OF INTRA-PROVINCIAL MIGRATION.
<p>1) Increasing housing opportunities between Hamilton-Wentworth and employment centres in the GTA</p> <p>The Regional Municipality of Halton's Master Plan calls for development to start in the defined urban area of Milton in 2000, while development in the defined urban areas north of Highway 5 in Oakville and Burlington will start in 2008 (Regional Municipality of Halton, January 1999). These two areas will result in an increase of housing choices for people who commute to work within the GTA with generally less commuting time.</p>	<p>1) Excellent supply of undeveloped designated urban residential lands with relatively easy access to Highway #403.</p> <p>There is a large supply of land available for development in Ancaster and in the South Mountain area of Hamilton, which can support future housing demands resulting from demands by out commuters looking for relatively easy access to Highway #403.</p>
<p>2) The aging of the population.</p> <p>As the population ages, they tend to become less mobile. People who choose early retirement may look to move out of the Golden Horseshoe and desire smaller, more rural areas as a place to live.</p>	<p>2) Improved development opportunities between Hamilton-Wentworth and Haldimand-Norfolk.</p> <p>Wastewater services will be provided to Binbrook in 2000/2001. Opening up this area for residential development may slow the movement of people from Hamilton-Wentworth to Haldimand-Norfolk. Binbrook may serve as an attractive alternative to the lower cost housing and/or semi-rural community lifestyle people are seeking in Haldimand-Norfolk.</p>
<p>3) Constraints on development that exist in Hamilton-Wentworth.</p> <p>There are some short-term constraints on development opportunities in Dundas and Waterdown due to limits on wastewater treatment capacity and on Upper Stoney Creek due to the inability to begin construction on the North-South portion of the Red Hill Creek Expressway. All of these constraints are expected to be removed within the next one to three years.</p> <p>Related to this is the decreasing supply of undeveloped designated urban residential land below the escarpment in Stoney Creek. With easy access to the QEW, this area is attractive to the out-commuter.</p>	<p>3) Continued relatively high levels of international migration into Ontario.</p> <p>The majority of international migrants coming to Ontario select Toronto as their first place of residence. Continued high levels of international migration will result in continued population growth in Toronto, which may cause an increasing shift population into the Municipalities surrounding Toronto and the Greater Toronto Area.</p>

Revised Assumption for Intra-provincial Migration

The recent increase in Hamilton-Wentworth's net intra-provincial migration rate is probably mainly due to the choice of Hamilton-Wentworth as a place to live by people working in the GTA. The factor that is probably having the largest influence is the push of continued international migration into Toronto along with the demands for new suburban housing with different styles and price points. Although there will be an increase in development opportunities between Hamilton-Wentworth and the GTA, the competitive pricing and transportation access found in our community will probably continue to attract intra-provincial migrants. This combined with the opening up of Binbrook for development, which should compete with communities in Haldimand-Norfolk, such as Caledonia, suggests that Hamilton-Wentworth will probably maintain the recent positive rate of intra-provincial migration.

Between 1994-95 and 1996-97 the net annual average rate of intra-provincial migration was +150 people. It is assumed that this rate will remain on average until 2008 when increased development opportunities will open in Oakville and Burlington. After 2008 it is assumed that the rate of intra-provincial migration will drop to +50 and remain so until the year 2021.

SUMMARY OF MIGRATION ASSUMPTIONS

The factor that will have the largest influence on future migration rates will be Federal Policy with respect to international migration. As long as annual immigration targets remain above 200,000 Hamilton-Wentworth will continue to see people moving into our community either directly from another country or indirectly as a result of population growth pressures in the GTA.

Table Seven below summarizes the proposed annual migration rates for Hamilton-Wentworth for the projection period of 1996 to 2021.

**Table Seven: PROPOSED ANNUAL MIGRATION RATES
For Hamilton-Wentworth, 1996 to 2021**

Time Period	Net Intra-provincial migration	Net Inter-provincial migration	Net International Migration	NET MIGRATION
1996 – 2008	+150	0	+2725	+2875
2008 – 2021	+50	0	+2725	+2775

In comparison with the net migration assumptions made in the "1992 Population Projections" these numbers are nominally higher. For the 1996 to 2021 time period the 1992 Report assumed that the average annual net migration rate would be to around +2,000.

The two major emerging trends, which suggest increasing the migration rates, are:

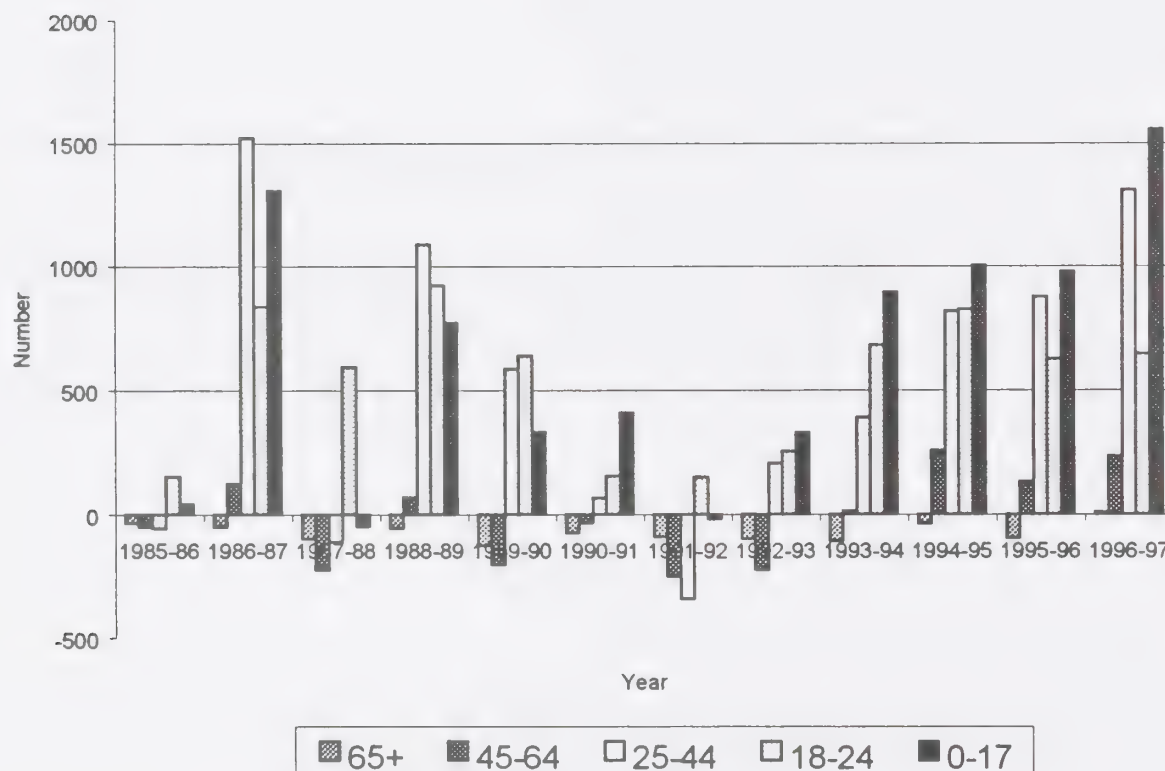
- the maintenance by the Federal Government of annual immigration targets over 200,000; and
- the continued evolution of Hamilton-Wentworth becoming part of the GTA commutershed.

AGE OF MIGRANTS

Identification of which age groups are moving in or out of Hamilton-Wentworth is important because of its influence on the future age structure of the population. For example, if Hamilton-Wentworth is losing a significant number of women aged 25 to 34, this will have a large effect on future population growth because this is a large portion of women in the childbearing population.

During the ten-year period between 1987 and 1997, Figure Five reveals that the age group that has been the most mobile is those aged 0 to 44. People aged 45 and over have been relatively stable.

**Figure Five: ANNUAL NET MIGRATION by AGE,
Hamilton-Wentworth, 1985-86 to 1996-97**



Source: Statistics Canada, Small Area and Data Division.

Revised Assumption for Age of Migrants

Between 1985 and 1997, approximately 37% of the net migrants to Hamilton-Wentworth were aged 0 to 17, 32% were aged 18 to 24, 31% were aged 25 to 44, while for people aged 45 and over there was a slight negative net migration rate. In distributing projected net migrants, according to age, it is assumed that the distribution for the 1985 to 1997 time period will continue. Table Eight summarizes the assumed age distribution of the expected annual migration.

**Table Eight: REVISED ASSUMPTION for AGE DISTRIBUTION of MIGRANTS
For Hamilton-Wentworth, 1996 - 2021**

Age of Migrants	Time Period	
	1996 – 2008	2008 – 2021
0 – 17	1065	1030
18 – 24	920	890
25 – 44	890	860
45 – 64	0	0
65 and over	0	0
TOTAL	2875	2775

REVIEW OF REVISED ASSUMPTIONS

The total fertility rate for Hamilton-Wentworth will remain at 1.61 for the entire projection period.

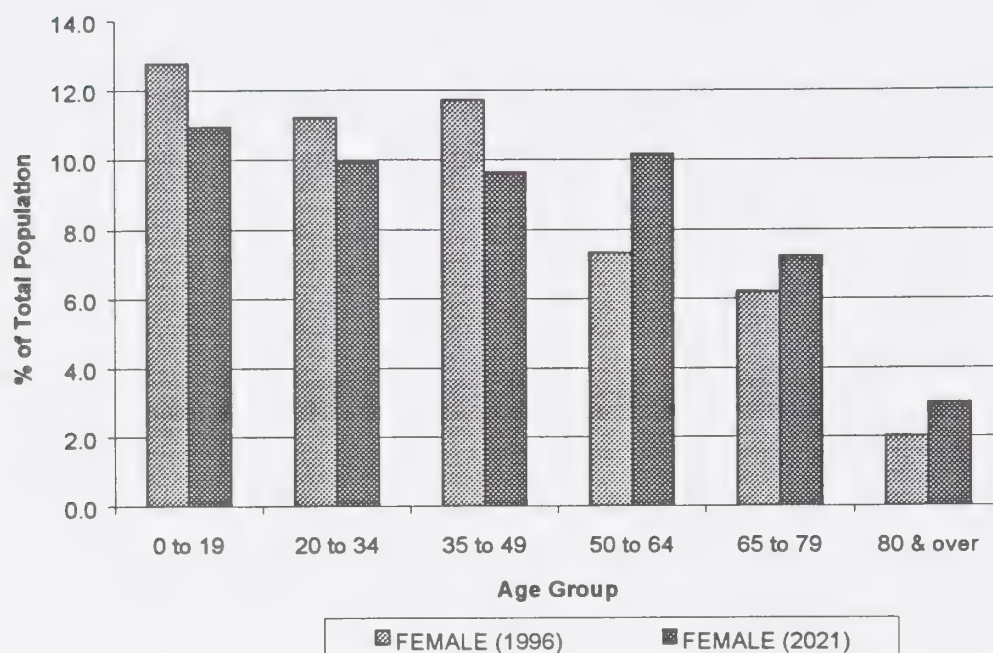
Male life expectancy at birth will rise to 78.3 years in 2016 and remain at that level for the remainder of the projection period.

Female life expectancy at birth will rise to 84.5 years in 2016 and remain at that for the remainder of the projection period.

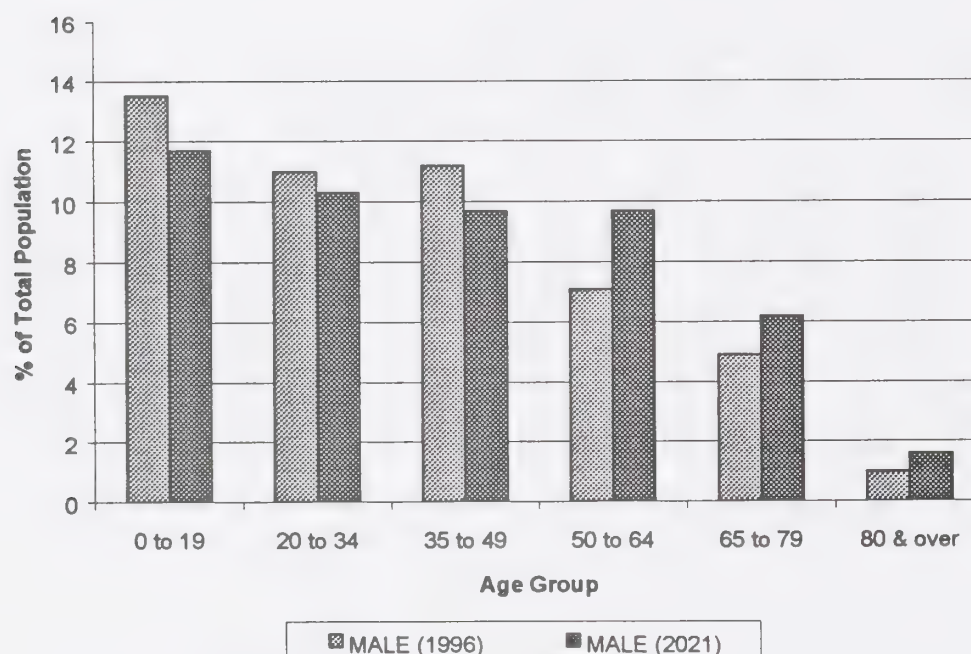
Net annual international migration will remain high at 2,725 people for the entire projection period.

Net annual inter-provincial migration will have on average no net effect on population change over the entire projection period.

**Figure Seven: CHANGE in FEMALE POPULATION DISTRIBUTION
by AGE GROUP, Hamilton-Wentworth, 1996 and 2021**



**Figure Eight: CHANGE in MALE POPULATION DISTRIBUTION
by AGE GROUP, Hamilton-Wentworth, 1996 and 2021**



Sources: Census of Canada, 1996
Region of Hamilton-Wentworth

SECTION THREE: HOUSEHOLD FORECASTS

HOUSEHOLD FORMATION

The development of land use policies to accommodate forecasted population growth is tied to the ability to forecast the number and type of households that will be present in our community in the future. Due to a number of factors, such as, the aging of the population, increases in the rate of divorce, changing attitudes about the traditional family unit, and growth in the number of people living alone the rate of household growth has been greater than the rate of population growth (see Table 9).

Between 1991 and 1996 the number of households in Hamilton-Wentworth increased by 5.5% from 168,740 in 1991 to 178,420 in 1996. In comparison population growth for the same time period was only 3.5%.

**Table 9: POPULATION AND HOUSEHOLD GROWTH
HAMILTON-WENTWORTH, 1976 to 1996**

YEAR	HOUSEHOLDS	POPULATION
1976	136,135	409,500
1981	147,200	411,400
% Average Annual Growth 1976-81	1.6	0.1
1986	155,600	423,400
% Average Annual Growth 1981-86	1.1	0.6
1991	168,740	451,665
% Average Annual Growth 1986-91	1.7	1.3
1996	178,420	467,830
% Average Annual Growth 1991-96	1.1	0.7

Source: Census of Canada, 1976 to 1996.

Household size, or the average number of persons per household, continues to decline. In 1976 the average number of people per household in Hamilton-Wentworth was 3.01. In 1996 the average household size had declined to 2.62 persons.

**Table 10: Average Number of Persons per Household
Hamilton-Wentworth 1976 - 1996**

	YEAR				
	1976	1981	1986	1991	1996
Average household size	3.01	2.79	2.72	2.67	2.62

Source: Census of Canada, 1976 to 1996.

CHANGING FAMILY STRUCTURE

Similar to the rest of Canada and Ontario, Hamilton-Wentworth is seeing a change in its family structure. Reflecting primarily the aging of the population, the biggest change between 1986 and 1996 has been a decline in the proportion of families with children and an increase in the proportion of single person households (see Table 11).

**Table 11: Percentage of Households by Type
Hamilton-Wentworth, 1986 & 1996**

HOUSEHOLD TYPE	PERCENTAGE OF HOUSEHOLDS	
	1986	1996
Husband-Wife with Children	39%	35%
Husband-Wife without Children	25%	24%
Lone Parent	9%	10%
Multi-family Households	1%	1%
Single Person Households	23%	26%
Other Non-Family	4%	4%

Source: Census of Canada, 1986 and 1996.

HEADSHIP RATES

Headship rates measure the propensity of the population to form households. The higher the headship rate, the more households in the population. For example, the headship rate in Hamilton-Wentworth in 1996 was:

$$\begin{aligned} \text{Headship rate} &= \frac{178,420 \text{ (number of households)} \times 100}{374,315 \text{ (total population aged 15 and over)}} \\ &= 47.7\% \end{aligned}$$

As a person ages the likelihood that they will head a household changes. For example, in Hamilton-Wentworth, in 1996, only 10% of males aged 15 to 24 were household heads, compared to 87% for males aged 55 to 64. The propensity to head a household also differs between men and women. In 1996, in Hamilton-Wentworth 64% of men aged 15 and over were considered the head of the household while only 32% of women aged 15 and over were the head of the household. This is changing with the increase in lone parent families, the aging of the population which is resulting in a growing number of elderly widowed women, and society norms about who is the head of the household.

**Table 12: Household Headship Rates by
Age and Gender of Household Head
Hamilton-Wentworth, 1991 – 1996**

Age Group	Household Headship Rates					
	1991			1996		
	Male	Female	Total	Male	Female	Total
15 – 24	11.4	11.4	11.4	9.6	11.9	10.7
25 – 34	64.0	26.5	45.2	55.8	34.1	44.9
35 – 44	81.5	26.2	53.3	75.7	33.2	54.0
45 – 54	86.7	24.3	55.4	81.7	30.9	55.9
55 – 64	87.6	28.5	57.2	86.9	30.0	57.7
65+	84.3	46.0	61.9	84.0	48.6	63.4
Total	66.8	27.6	46.5	64.1	32.4	47.7

Source: Census of Canada, 1991 and 1996.

CURRENT HOUSEHOLD PROJECTIONS

The 1992 Regional population projections, prepared by the Region's Planning and Development Department projected that the number of households in Hamilton-Wentworth will increase by 63,115 between 1991 and 2021. This increase from 169,120 households in 1991 to 232,235 in 2021 represents a projected 37% increase in the number of households (Regional Municipality of Hamilton-Wentworth, 1992).

Between 1991 and 1996 the number of households was forecasted to increase by 12,000 to a total of 181,010. According to the 1996 Census, the total number of households in 1996 for Hamilton-Wentworth was 178,420, which are almost 2,600 less than forecasted in 1992.

The primary reason for the fewer than forecast households was the lower than expected population growth.

REVISED HOUSEHOLD PROJECTIONS

The propensity by age group to form a household has not significantly changed over the last few years. Therefore, the average of the household headship rates by age for 1991 and 1996 is held constant for the entire projection period.

Based on this assumption the projected number of households for Hamilton-Wentworth by the year 2021 is 235,580. This represents a forecasted increase of almost 57,000 households between 1996 and 2021 (see Figure Seven). In comparison to the household forecasts prepared in 1992, this is an increase of about 3,000 households.

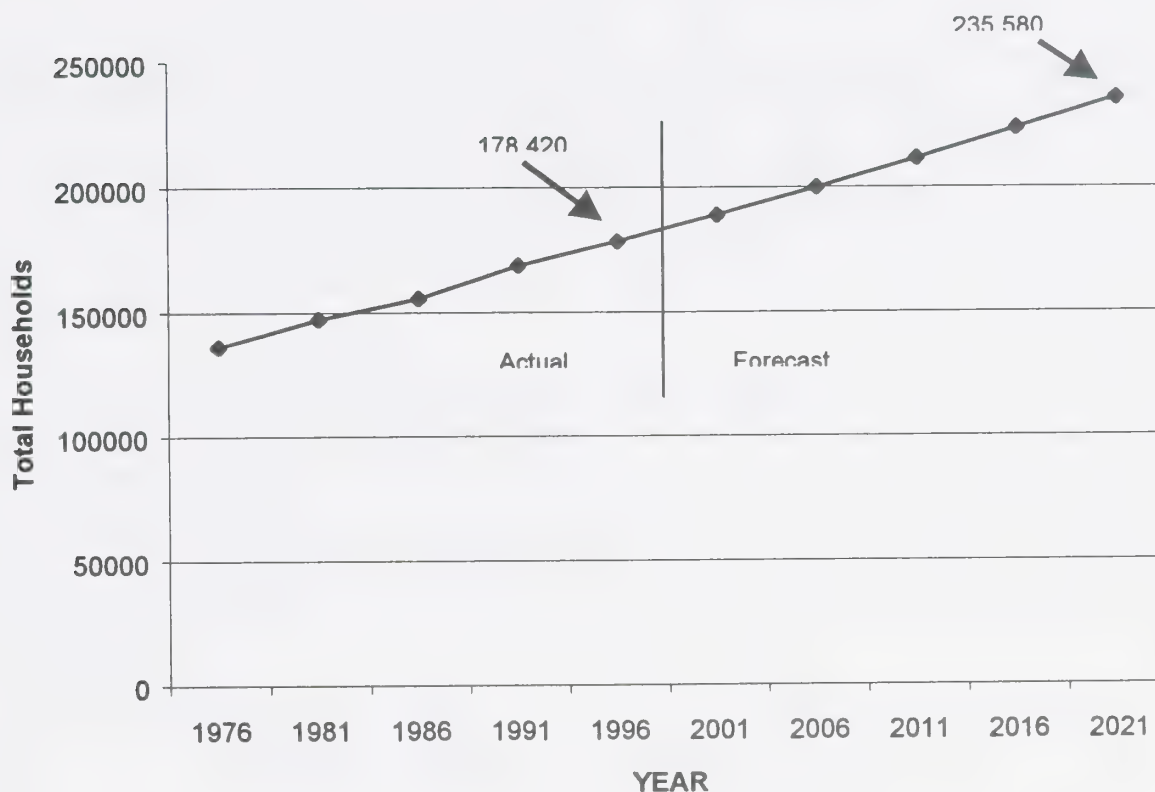
When one examines which age groups will experience the greatest growth in households, the largest growth will occur in households headed by individuals aged 55 and over (see Table 13). This forecast growth in the number of households headed by the elderly is a reflection of the forecasted aging of the baby boom generation. This forecast increase in the number of households headed by people aged 55 and over has significant implications for the type of housing that will be required in the future.

**Table 13: Household Projections
Hamilton-Wentworth 1996 - 2021**

AGE	HOUSEHOLDS			% CHANGE 1996 – 2021
	1996	2011	2021	
15 – 24	6470	8130	7590	17
25 – 34	32745	32690	36435	11
35 – 44	40465	38285	40940	1
45 – 54	32360	45185	40290	24
55 – 64	24330	37330	45085	85
65+	42015	49870	65245	55
TOTAL	178420	211490	235580	32

Source: Region of Hamilton-Wentworth.

**Figure Eight: ACTUAL and FORECAST HOUSEHOLD GROWTH
Hamilton-Wentworth, 1976 to 2021**



Sources: Census of Canada, 1976 to 1996
Region of Hamilton-Wentworth.

It should be noted that a detailed assessment and projection of the housing demand preferences of new household growth in Hamilton-Wentworth has not been undertaken based on these new household projections. Recognizing the bulk of future household growth will occur in the older age cohorts and by households that tend to be smaller in size, e.g., non-family, empty nesters, it is likely that a growing component of future housing demand will be for more smaller dwelling structures, e.g., townhouses. At the same time, a growing proportion of the population will be "over-housed", e.g., two elderly people living in an older single-detached dwelling.

SECTION FOUR: LABOUR FORCE PROJECTIONS

CURRENT LABOUR FORCE PROJECTIONS and RECENT TRENDS

The 1992 Regional population projections, prepared by the Region's Planning and Development Department projected that the resident labour force in Hamilton-Wentworth would increase by 72,115 people between 1991 and 2021 to 312,240 workers. Growth in the size of the labour force was forecast to be greatest between 1991 and 2001, as the proportion of women in the labour force increased from 46% to 50%. After 2011 it was forecast that there would limited growth in the size of the labour force because the baby boom will be moving into the elderly age groups and average annual growth will decline to less than 0.1% (Regional Municipality of Hamilton-Wentworth, 1992).

Rather than increasing as forecast, between 1991 and 1996 the resident labour force that is either employed or actively searching for work in Hamilton-Wentworth actually dropped from an estimated 237,000 people to 232,000 (see Table 14). This drop is a reflection of the recession that effected the Ontario economy as a whole and the under performance of the Hamilton-Wentworth local economy, which saw a loss of almost 11,000 jobs between 1991 and 1996. Table 15 shows that restructuring in the manufacturing sector, particularly in the steel and automotive industries, and a large decline in the number of jobs in construction were the major causes of the job loss between 1991 and 1996 (Human Resources and Development Canada, 1997(a)).

Table 14: SIZE OF RESIDENT LABOUR FORCE by GENDER and PARTICIPATION RATES by GENDER and AGE, Hamilton-Wentworth, 1986, 1991 and 1996

	YEAR		
	1986	1991	1996
RESIDENT LABOUR FORCE			
Male	123,665	128,985	124,240
Female	95,625	107,900	107,885
Total	219,290	236,885	232,125
LABOUR FORCE PARTICIPATION RATES			
Male	76.1	74.4	69.8
Female	55.1	58.4	56.4
Aged 15 to 24	70.0	69.5	63.5
Aged 25+	64.0	65.5	62.8
Total	65.3	66.2	62.9

Sources: Statistics Canada, 1986, 1991 and 1996.

Table 15: CHANGE in EMPLOYMENT OPPORTUNITIES by CATEGORY
Hamilton-Wentworth, 1991 and 1996

EMPLOYMENT CATEGORY	NUMBER OF EMPLOYMENT OPPORTUNITIES BY YEAR		DIFFERENCE (% CHANGE)
	1991	1996	
Primary	2,315	3,485	1,170 (50.5%)
Manufacturing	45,520	40,315	-5,205 (-11.4%)
Construction	10,075	5,825	-4,250 (-42.2%)
Transportation and Storage	10,715	9,345	-1,370 (-12.8%)
Wholesale	7,330	8,120	790 (10.8%)
Retail	26,365	24,865	-1,500 (-5.7%)
Finance, Insurance & Real Estate	10,845	9,475	-1,370 (-12.6%)
Business Services	7,800	8,800	1,000 (12.8%)
Government Services	10,520	7,370	-3,150 (-29.9%)
Education, Health and Social Services	41,540	41,600	60 (0.1%)
Accommodations, Food and Beverage	22,080	24,420	2,340 (10.6%)
TOTAL	195,055	184,105	-10,950 (-5.6%)

Sources: Statistics Canada, 1991 & 1996

Restructuring in the steel and automotive industries has also resulted in a large number of people taking early retirement, which usually removes them from the labour force and results in the elimination of these former employment opportunities. With reduced employment opportunities, a greater number of people give up trying to find a job and remove themselves from the labour force, potentially lowering demand for new housing. This trend, in particular, is reflected in the drop in participation rates of 69.5 in 1991 to 63.5 in 1996 that was seen for people aged 15 to 24 (see Table 14).

Since 1996 the Ontario economy has shown strong growth that is generating new employment opportunities which is reflected in recent growth in the size of the labour force. For the Hamilton Census Metropolitan Area (CMA), which includes Burlington, Hamilton-Wentworth and Grimsby, it was found that in 1998 over 50% of the growth in the working age population was due to people re-entering the labour force. Women in the youth and prime working age groups account for the majority of the people re-entering the labour force (Human Resources Development Canada, 1998). Across the Hamilton CMA employment has been growing faster than the labour force, leading to the current low unemployment rate for this area.

REVISED LABOUR FORCE PROJECTIONS

The size of the labour force is forecast by applying age and gender specific labour force participation rates to the age and gender breakdown of the forecast population. This provides an estimate of the resident labour force. The resident labour force is converted into the employed labour force, working in Hamilton-Wentworth by applying an assumed unemployment rate and an assumed net rate of commuting. This is not an economic forecast but an estimation of the number of people available to work residing in Hamilton-Wentworth and the number of jobs that may have to be created locally to accommodate the forecast growth.

Although overall labour force participation rates declined between 1991 and 1996, the recent strength of the Ontario economy has resulted in the local participation rate increasing to earlier levels of around 66% (Human Resources and Development Canada, 1998). Therefore it is assumed that the labour force participation rates will return to the levels seen in 1991 by the year 2001. Reflecting historic trends, the participation rates for women is gradually increased between 2001 and 2021 to equal male participation rates, except for women aged 25 to 34, the prime child bearing years.

To determine the forecast size of the labour force working in Hamilton-Wentworth, two assumptions are made about unemployment rates and commuting patterns. Unemployment within the Hamilton Census Metropolitan Area is currently around 5%, which is usually assumed to represent full employment. Reflecting the desire to maintain achievement of the goal of full employment, the unemployment rate is held constant at 5% for the entire projection period.

As discussed earlier in this report, Hamilton-Wentworth is experiencing an increase in the rate of out-commuting. Two factors are suspected to be underlying this increase:

- the inability of the local economy to generate enough jobs for local residents; and
- the attraction of Hamilton-Wentworth in terms of housing costs, quality of life and transportation access for people who work within the GTA.

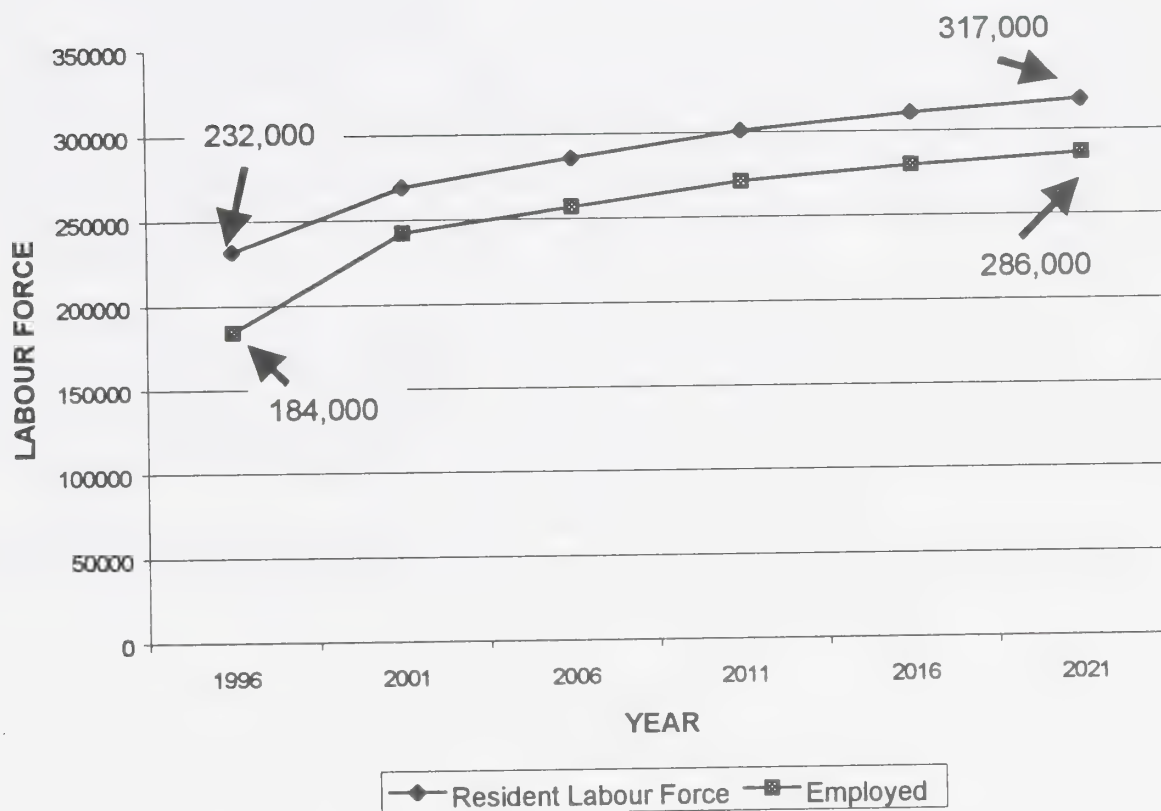
The Hamilton-Wentworth economy along with the Ontario economy has recovered and is starting to generate an increase in employment opportunities. As revealed in Table 15, Hamilton-Wentworth's economy is becoming increasingly diversified and therefore less reliant upon one sector of the economy to generate jobs. Therefore out-commuting as a result of the under-performance of the local economy should decline.

However as discussed earlier in this Report, Hamilton-Wentworth is expected to continue to attract people who work in the GTA. The continued movement of people into the community who work in the GTA will offset the reduced out-commuting due to improvements in the local economy. Therefore the 1996 net commuting rate of -5% of the resident labour force identified in the Commuter Study is held constant for the entire projection period (Region of Hamilton-Wentworth, 1999).

Hamilton-Wentworth's resident labour force is forecast to increase by an estimated 85,000 people from 232,000 in 1996 to 317,000 in 2021 (see Figure Nine). Growth in the resident labour force will be greatest between 1996 and 2006. After 2006, growth in the resident labour force will slow as the baby boom moves into the elderly age groups.

The size of the labour force projected to be working within Hamilton-Wentworth (minus the assumed unemployment and the net commuting rates) is forecast to increase from an estimated 184,000 in 1996 to 286,000 in 2021. This means that the local economy will need to generate an estimated 102,000 new jobs during this twenty-five year period.

Figure Nine: FORECAST LABOUR FORCE GROWTH
Hamilton-Wentworth, 1996 to 2021



Sources: Census of Canada, 1996
Region of Hamilton-Wentworth

SECTION FIVE: OFFICIAL PLAN POLICY IMPLICATIONS

The forecast population, household and labour force growth presented in this report has implications for all municipal services. The forecasts provide a guideline for planning to meet demands on water and wastewater treatment and solid waste management facilities, economic development, financial, health and social services, schools, public transit, fire and police services, parks and recreational services and transportation and land use planning. All of these services will need to plan to accommodate the expected growth and changes in the age structure to the year 2021.

In terms of land use planning and the five-year review of the Hamilton-Wentworth Official Plan, an assessment is required as to whether the existing land use designations and policies are capable of accommodating the forecast growth. The forecasts presented in this report estimated that the Region will see an increase of about 57,000 households between 1996 and 2021. The existing Official Plan will need to be reviewed to determine whether an adequate and appropriate supply of land has been designated to accommodate this forecast demand for new residential units.

The employed labour force in Hamilton-Wentworth is forecast to grow by and 102,000 people between 1996 and 2021. This means the review of the Official Plan must assess whether enough industrial/commercial lands have been designated to address the forecast growth in the labour force. If inadequate or inappropriate lands are designated, this could contribute to an increase in either the unemployment rate or the rate of out-commuting.

Background Report #3, *"Analysis of Land Use Requirements to Meet Forecast Growth to the Year 2021"*, will assess the adequacy of existing land use designations to accommodate forecast growth within a 20-year time horizon.

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Hamilton-Wentworth Population and Selected Characteristics, 1996 to 2021 (000s)

YEAR	Births	Deaths	Net Migration	Total Population	Annual Increase (%)	AGE GROUP		
						0-14 (%)	15-64 (%)	65+ (%)
1996	5630	3845	2875	467830		20.0	65.8	14.2
1997	5581	3881	2875	472490	1.00	19.9	65.8	14.3
1998	5535	3918	2875	477065	0.97	19.8	65.9	14.3
1999	5502	3965	2875	481557	0.94	19.6	66.0	14.4
2000	5476	4007	2875	485969	0.92	19.4	66.2	14.4
2001	5465	4046	2875	490314	0.89	19.2	66.4	14.4
2002	5462	4083	2875	494608	0.88	18.9	66.7	14.4
2003	5471	4120	2875	498862	0.86	18.7	66.8	14.4
2004	5489	4150	2875	503088	0.85	18.5	67.1	14.4
2005	5519	4184	2875	507302	0.84	18.2	67.3	14.5
2006	5557	4207	2875	511512	0.83	17.9	67.6	14.5
2007	5605	4186	2875	514613	0.61	17.7	67.9	14.4
2008	5662	4219	2775	519525	0.95	17.4	68.0	14.6
2009	5727	4244	2775	523843	0.83	17.2	68.1	14.7
2010	5792	4288	2775	528101	0.81	17.0	68.2	14.8
2011	5862	4336	2775	532380	0.81	16.9	68.2	14.9
2012	5929	4373	2775	536681	0.81	16.8	67.9	15.3
2013	5994	4439	2775	541012	0.81	16.7	67.7	15.6
2014	6054	4460	2775	545343	0.80	16.6	67.5	15.9
2015	6107	4493	2775	549711	0.80	16.6	67.3	16.1
2016	6154	4476	2775	554100	0.80	16.6	67.0	16.4
2017	6194	4561	2775	558552	0.80	16.6	66.7	16.7
2018	6227	4652	2775	562960	0.79	16.6	66.4	17.0
2019	6251	4733	2775	567310	0.77	16.6	66.1	17.3
2020	6266	4819	2775	571604	0.76	16.6	65.7	17.7
2021				575826	0.74	16.6	65.3	18.1

Sources:

NOTE: Figures may not add to totals due to rounding.

Census of Canada, 1991 and 1996 and the Region of Hamilton-Wentworth, Community Planning and Development Division

Population of Hamilton-Wentworth by Five-year Age Groups and Gender, Selected Years, 1996 – 2021 (000s)

AGE	1996						2001						2006						2011						2021					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0-4	15825	15095	30920	14435	13925	28358	14370	13700	28068	15015	14000	29016	15015	14000	29016	16555	15215	31769	16555	15215	31769	16555	15215	31769	16555	15215	31769	16555	15215	31769
5-9	16345	15380	31725	16540	15815	32355	15155	14650	29804	15085	14415	29499	15085	14415	29499	16640	15380	32022	16640	15380	32022	16640	15380	32022	16640	15380	32022	16640	15380	32022
10-14	15810	15060	30870	17080	16105	33190	17275	16550	33823	15885	15380	31265	15885	15380	31265	16435	15425	31858	16435	15425	31858	16435	15425	31858	16435	15425	31858	16435	15425	31858
15-19	14950	14250	29200	16630	15875	32507	17900	16930	34828	18085	17360	35447	18085	17360	35447	16605	15940	32546	16605	15940	32546	16605	15940	32546	16605	15940	32546	16605	15940	32546
20-24	15255	15735	30990	16445	15765	32211	18120	17395	35517	19375	18430	37801	19375	18430	37801	18140	17670	35809	18140	17670	35809	18140	17670	35809	18140	17670	35809	18140	17670	35809
25-29	16610	16965	33575	16195	16690	32883	17380	16730	34108	19045	18350	37390	19045	18350	37390	20430	19780	40207	20430	19780	40207	20430	19780	40207	20430	19780	40207	20430	19780	40207
30-34	19640	19725	39365	17105	17475	34577	16685	17210	33892	17855	17240	35092	17855	17240	35092	20715	19870	40582	20715	19870	40582	20715	19870	40582	20715	19870	40582	20715	19870	40582
35-39	19510	19840	39350	20090	20210	40297	17565	17980	35543	17140	17710	34850	17140	17710	34850	19925	19355	39280	19925	19355	39280	19925	19355	39280	19925	19355	39280	19925	19355	39280
40-44	17140	18380	35520	19875	20295	40171	20470	20680	41150	17985	18460	36441	17985	18460	36441	18715	18240	36954	18715	18240	36954	18715	18240	36954	18715	18240	36954	18715	18240	36954
45-49	15950	16625	32575	17130	18475	35607	19860	20405	40267	20495	20810	41305	20495	20810	41305	17635	18375	36010	17635	18375	36010	17635	18375	36010	17635	18375	36010	17635	18375	36010
50-54	12565	12745	25310	15680	16440	32124	16865	18300	35169	19585	20230	39815	19585	20230	39815	17815	18505	36319	17815	18505	36319	17815	18505	36319	17815	18505	36319	17815	18505	36319
55-59	10650	10890	21540	12175	12490	24664	15240	16150	31391	16460	18020	34482	16460	18020	34482	19810	20440	40249	19810	20440	40249	19810	20440	40249	19810	20440	40249	19810	20440	40249
60-64	9905	10690	20595	10155	10560	20717	11650	12165	23814	14650	15790	30440	14650	15790	30440	18480	19680	38160	18480	19680	38160	18480	19680	38160	18480	19680	38160	18480	19680	38160
65-69	9505	11050	20555	9080	10190	19273	9390	10130	19514	10880	11690	22565	10880	11690	22565	14945	17215	32158	14945	17215	32158	14945	17215	32158	14945	17215	32158	14945	17215	32158
70-74	8355	10760	19115	8210	10170	18381	7960	9450	17412	8400	9425	17828	8400	9425	17828	12515	14455	26969	12515	14455	26969	12515	14455	26969	12515	14455	26969	12515	14455	26969
75-79	5150	7270	12420	6660	9450	16111	6635	9040	15676	6550	8460	15014	6550	8460	15014	8230	10100	18333	8230	10100	18333	8230	10100	18333	8230	10100	18333	8230	10100	18333
80-84	3030	5135	8165	3430	5870	9304	4520	7815	12336	4655	7515	12168	4655	7515	12168	5040	7610	12645	5040	7610	12645	5040	7610	12645	5040	7610	12645	5040	7610	12645
85+	1680	4360	6040	2235	5350	7583	2715	6485	9197	3585	8380	11963	3585	8380	11963	4250	9705	13955	4250	9705	13955	4250	9705	13955	4250	9705	13955	4250	9705	13955
Total	227875	239955	467830	239145	251170	490315	249760	261755	511510	260725	271655	532380	260725	271655	532380	282875	292955	575825	282875	292955	575825	282875	292955	575825	282875	292955	575825	282875	292955	575825

Sources:

Census of Canada, 1996 and the Region of Hamilton-Wentworth, Community Planning and Development Division

NOTE:

Figures may not add to totals due to rounding.

Change in Hamilton-Wentworth's Population by Five-year Age Groups and Gender, Selected Years, 1991 – 2021 (Per Cent)

AGE	1991 - 1996						1996 - 2001						2001 - 2006						2006 - 2011						2011 - 2016						2016 - 2021					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T						
0-4	-0.3	-0.2	-0.3	-8.8	-7.8	-8.3	-0.4	-1.6	-1.0	4.5	2.2	3.4	6.1	4.8	5.5	3.9	3.7	3.8																		
5-9	7.7	5.6	6.7	1.2	2.8	2.0	-8.4	-7.4	-7.9	-0.4	-1.6	-1.0	4.2	2.0	3.1	5.9	4.6	5.3																		
10-14	10.3	10.9	10.6	8.0	7.0	7.5	1.1	2.7	1.9	-8.1	-7.0	-7.6	-0.5	-1.6	-1.1	4.0	1.9	3.0																		
15-19	1.4	-0.8	0.3	11.2	11.4	11.3	7.6	6.6	7.1	1.0	2.6	1.8	-7.7	-6.7	-7.3	-0.5	-1.5	-1.0																		
20-24	-9.2	-7.7	-8.5	7.8	0.2	3.9	10.2	10.3	10.3	6.9	5.9	6.4	0.8	2.2	1.5	-7.1	-6.2	-6.7																		
25-29	-17.5	-15.2	-16.4	-2.5	-1.6	-2.1	7.3	0.2	3.7	9.6	9.7	9.6	6.4	5.5	6.0	0.8	2.1	1.4																		
30-34	0.2	-0.8	-0.3	-12.9	-11.4	-12.2	-2.4	-1.5	-2.0	7.0	0.2	3.5	9.2	9.3	9.3	6.2	5.4	5.8																		
35-39	13.5	9.1	11.2	3.0	1.9	2.4	-12.6	-11.0	-11.8	-2.4	-1.5	-2.0	6.7	0.2	3.4	8.9	9.1	9.0																		
40-44	6.5	12.3	9.4	16.0	10.4	13.1	3.0	1.9	2.4	-12.1	-10.8	-11.4	-2.4	-1.4	-1.9	6.6	0.2	3.3																		
45-49	22.0	26.0	24.0	7.4	11.1	9.3	15.9	10.4	13.1	3.2	2.0	2.6	-12.0	-10.6	-11.3	-2.2	-1.3	-1.8																		
50-54	13.7	15.5	14.6	24.8	29.0	26.9	7.5	11.3	9.5	16.1	10.5	13.2	3.3	2.2	2.7	-11.9	-10.5	-11.2																		
55-59	0.0	-1.1	-0.5	14.3	14.7	14.5	25.2	29.3	27.3	8.0	11.6	9.8	16.3	10.9	13.5	3.5	2.3	2.9																		
60-64	-7.3	-7.4	-7.4	2.5	-1.2	0.6	14.7	15.2	14.9	25.7	29.8	27.8	8.2	12.1	10.2	16.6	11.2	13.7																		
65-69	-3.8	-5.6	-4.8	-4.5	-7.8	-6.2	3.4	-0.6	1.3	15.9	15.4	15.6	26.3	30.9	28.6	8.8	12.5	10.8																		
70-74	27.1	26.7	26.8	-1.7	-5.5	-3.8	-3.0	-7.1	-5.3	5.6	-0.3	2.4	16.8	16.7	16.8	27.5	31.4	29.6																		
75-79	10.2	9.0	9.5	29.3	30.0	29.7	-0.4	-4.3	-2.7	-1.3	-6.4	-4.2	6.5	1.6	3.7	18.0	17.5	17.7																		
80-84	23.9	11.9	16.1	13.3	14.3	13.9	31.7	33.1	32.6	2.9	-3.9	-1.4	-0.2	-1.8	-1.2	8.5	3.1	5.2																		
85+	9.8	12.4	11.6	32.9	22.7	25.5	21.4	21.2	21.3	32.2	29.2	30.1	12.5	12.4	12.4	5.4	3.1	3.8																		
Total	3.3	3.8	3.5	4.9	4.7	4.8	4.4	4.2	4.3	4.4	3.8	4.1	4.2	3.9	4.1	4.1	3.8	3.9																		

Sources:

Census of Canada, 1991 & 1996 and the Region of Hamilton-Wentworth, Community Planning and Development Division

NOTE:

Figures may not add to totals due to rounding.



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